

FIG. 1

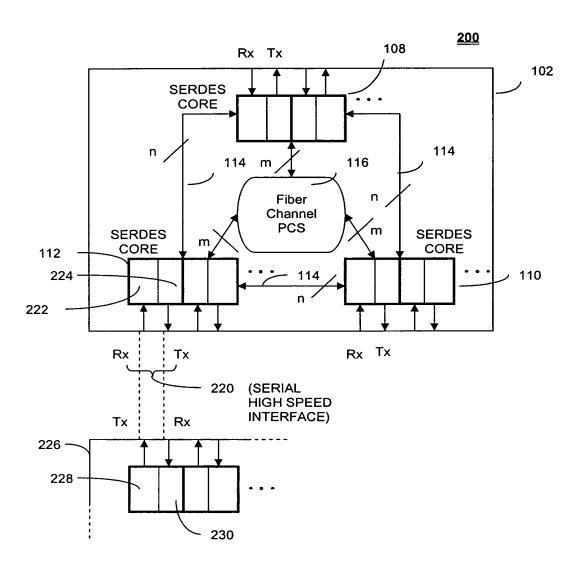


FIG. 2

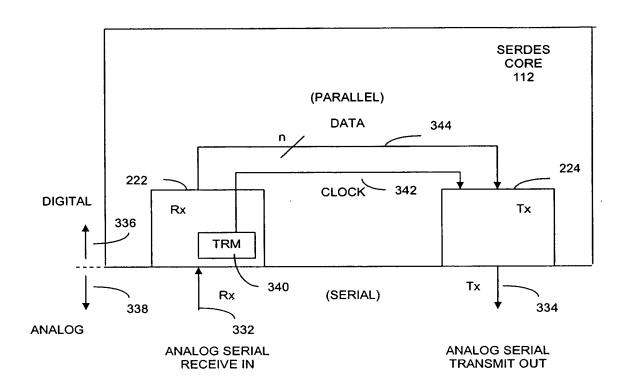


FIG. 3

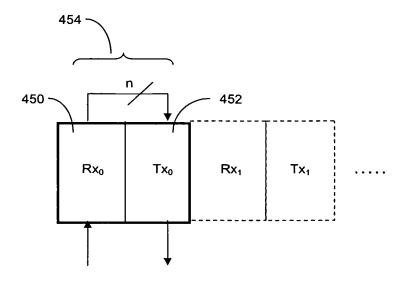
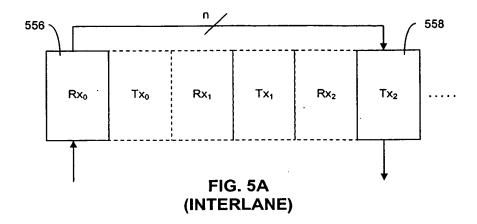


FIG. 4 (INTRALANE)



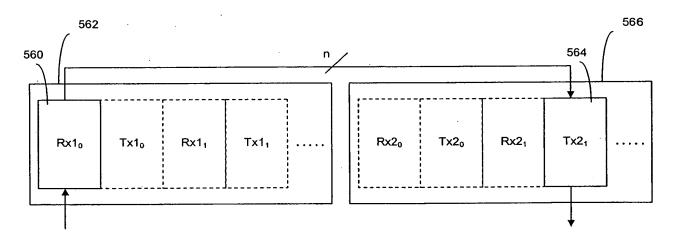
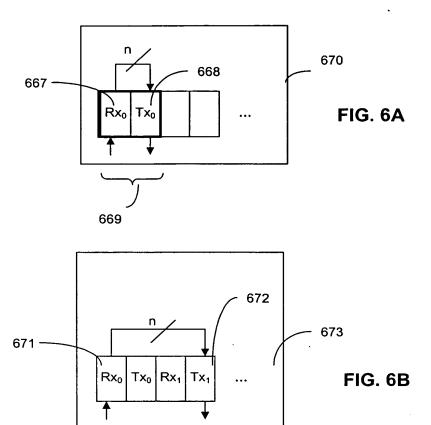


FIG. 5B (INTERLANE / INTERCORE)



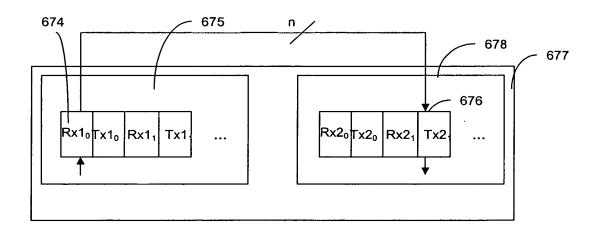


FIG. 6C

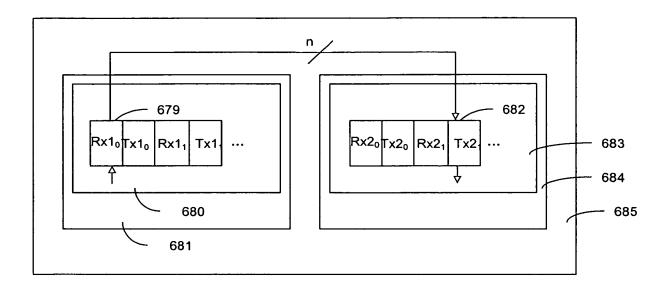


FIG. 6D

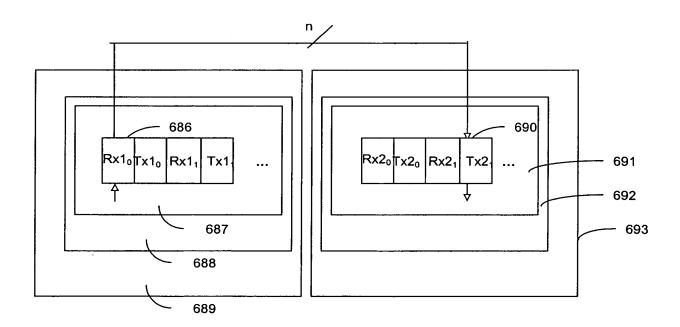
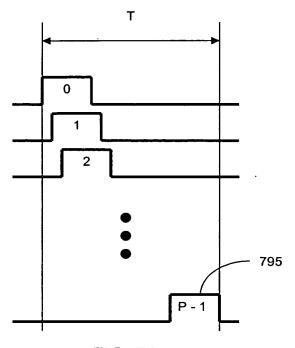


FIG. 6E



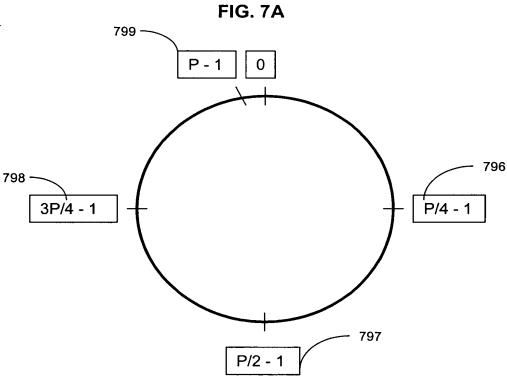


FIG. 7B

RX CLOCK PHASE & DIRECTION 806 TRM RX RETIMING MODULE 808

FIG. 8

910 912 N 4 3 2 1 0 DIRECTION Rx CLOCK PHASE Δ

FIG. 9

RX PREVIOUS CLOCK PHASE RX CURRENT CLOCK PHASE 1016 TX RETIMING MODULE PHASE CALC 1020

FIG. 10

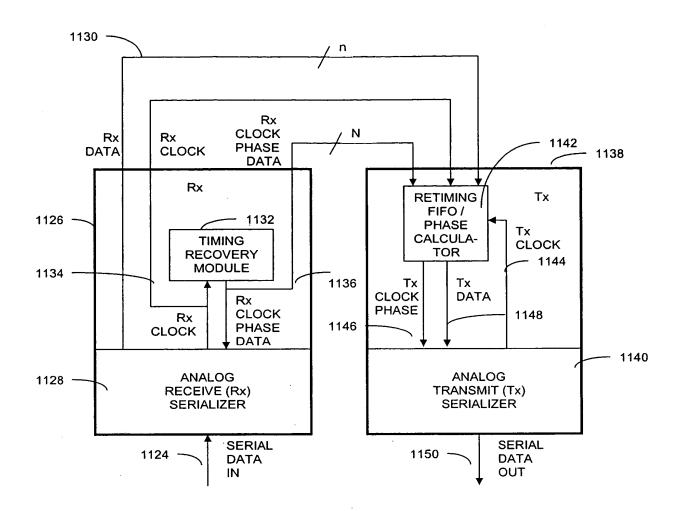


FIG. 11

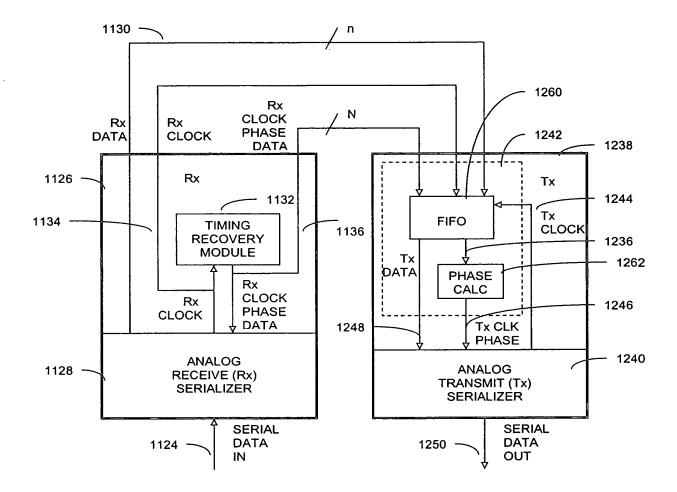


FIG. 12

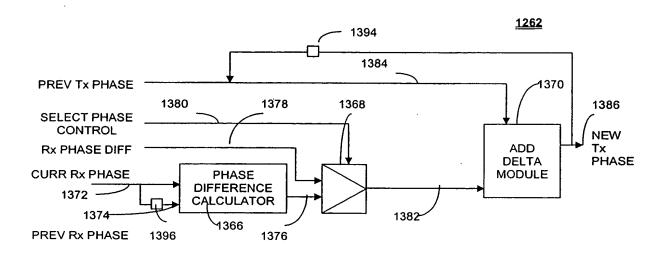


FIG. 13A

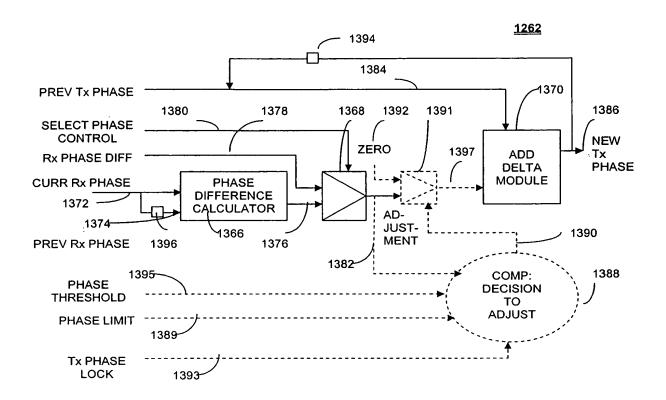


FIG. 13B

<u>1388</u>

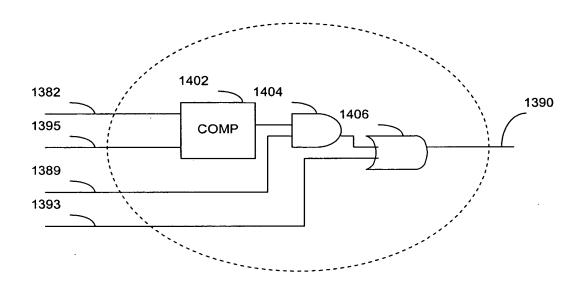
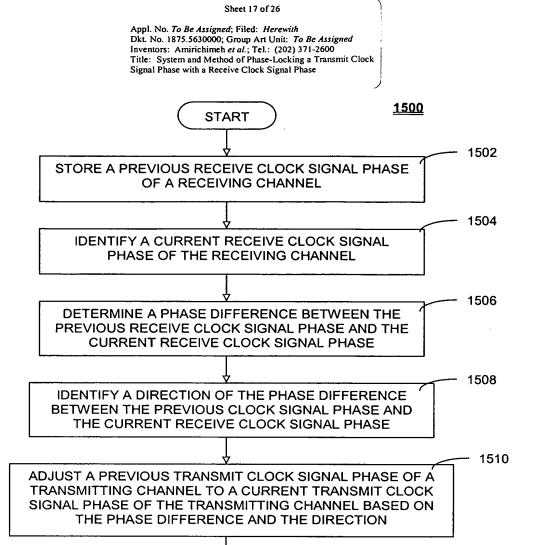


FIG. 14



1512

FIG. 15

END

<u>1600</u> **START** 1602 STORE A PREVIOUS RECEIVE CLOCK SIGNAL PHASE OF A RECEIVING CHANNEL 1604 **IDENTIFY A CURRENT RECEIVE CLOCK SIGNAL** PHASE OF A RECEIVING CHANNEL 1606 DETERMINE A PHASE DIFFERENCE BETWEEN THE PREVIOUS RECEIVE CLOCK SIGNAL PHASE AND THE CURRENT RECEIVE CLOCK SIGNAL PHASE 1608 IDENTIFY A DIRECTION OF THE PHASE DIFFERENCE BETWEEN THE PREVIOUS CLOCK SIGNAL PHASE AND THE CURRENT RECEIVE CLOCK SIGNAL PHASE 1610 PROVIDE THE PHASE DIFFERENCE AND THE DIRECTION TO A TRANSMITTING CHANNEL 1612 ADJUST A PREVIOUS TRANSMIT CLOCK SIGNAL PHASE OF THE TRANSMITTING CHANNEL TO A CURRENT TRANSMIT CLOCK SIGNAL PHASE OF THE TRANSMITTING CHANNEL BASED ON THE PHASE DIFFERENCE AND THE DIRECTION 1614 **END**

FIG. 16

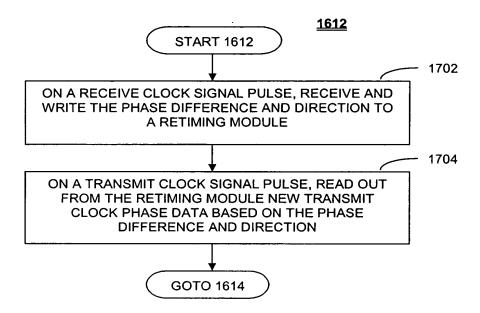


FIG. 17

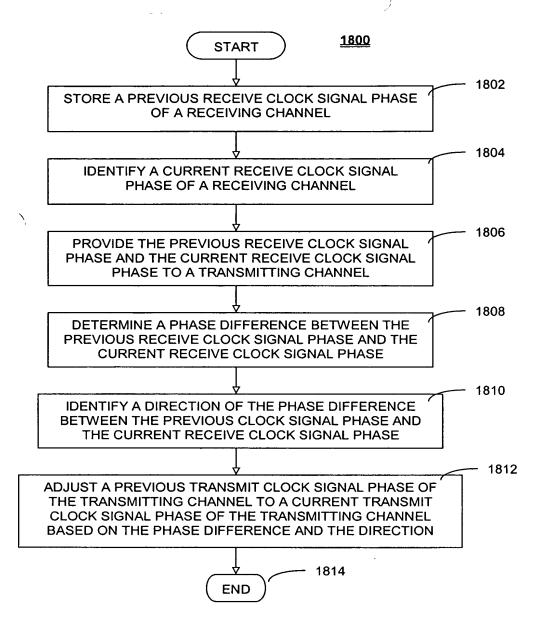


FIG. 18

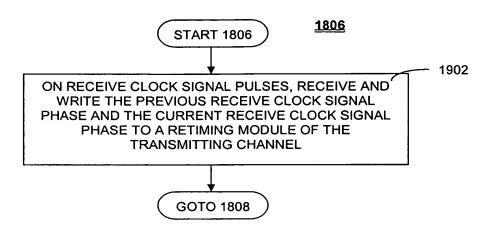


FIG. 19

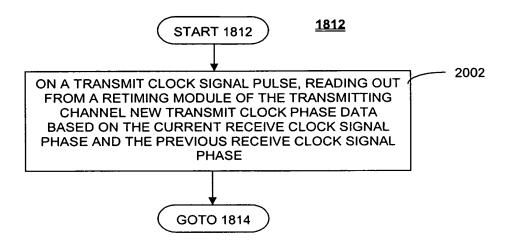


FIG. 20

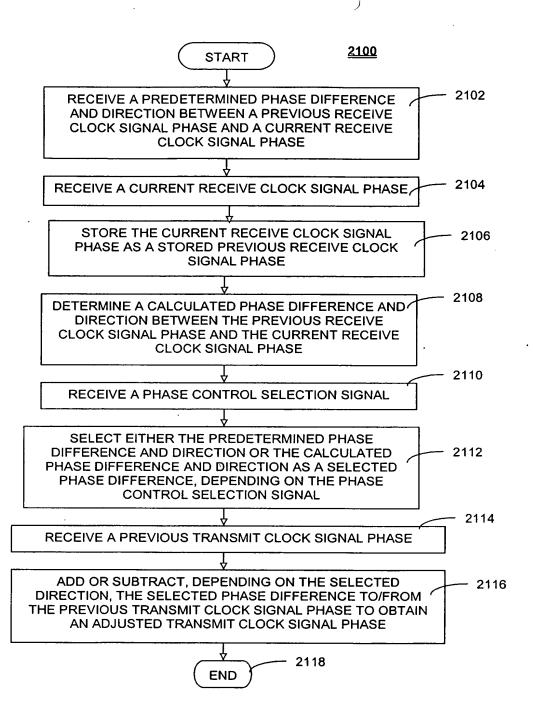


FIG. 21

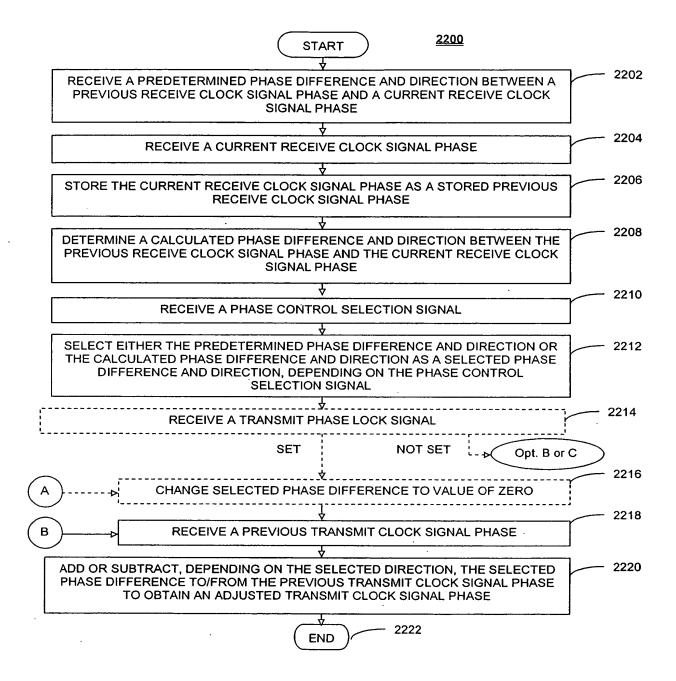


FIG. 22A

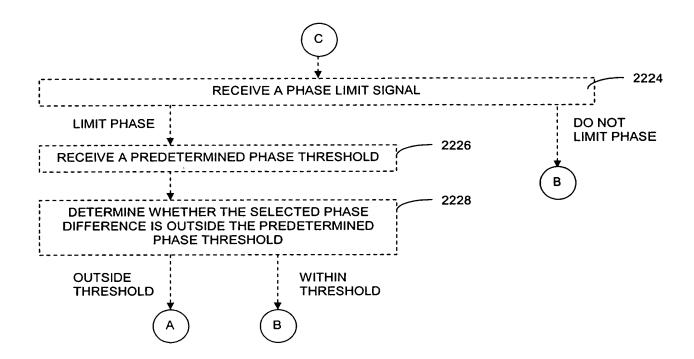


FIG. 22B

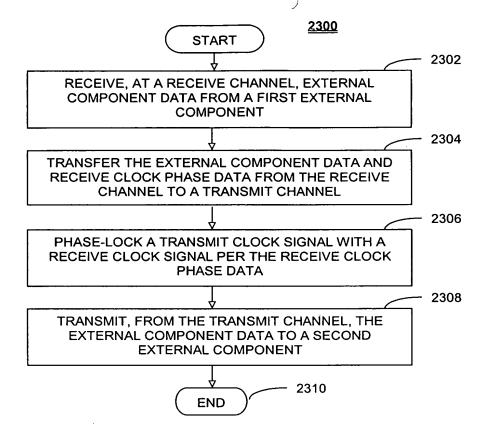


FIG. 23